

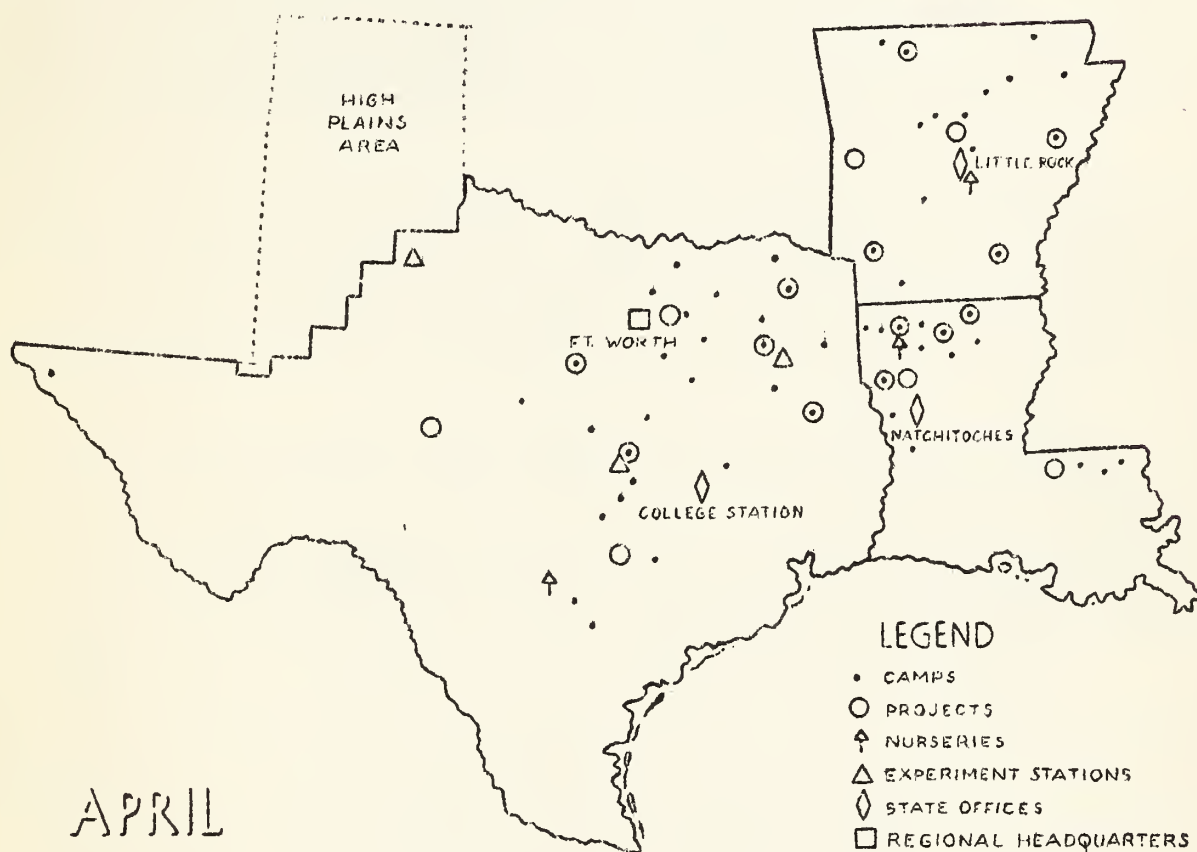
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SOIL CONSERVATION SERVICE



APR 17 1964



APRIL

REGION 4
COMPRISING STATES OF LOUISIANA,
ARKANSAS, AND TEXAS EXCEPT
HIGH PLAINS AREA

FARM ROADS IMPORTANT IN COORDINATED EROSION
CONTROL PROGRAM

By

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Region 4

The location and construction of farm roads and trails is of major importance in a complete erosion control program for the farm. In many cases the line of least resistance is followed in the making of farm road locations and no erosion control precautions are taken. The result is that on a great many farms gullying and considerable erosion damage in fields may be laid to improperly located roads.

It has been a general practice that when a farm road becomes impassable, it is moved over a few feet, which increases the idle, non-productive area of the farm with each move. Farm roadway gullies are in many cases causing silt deposits on good bottom land or in the terrace channel of the first terrace in cultivated fields. Terrace breaks can often be attributed to improper location or protection of a road or trail above the terrace system.

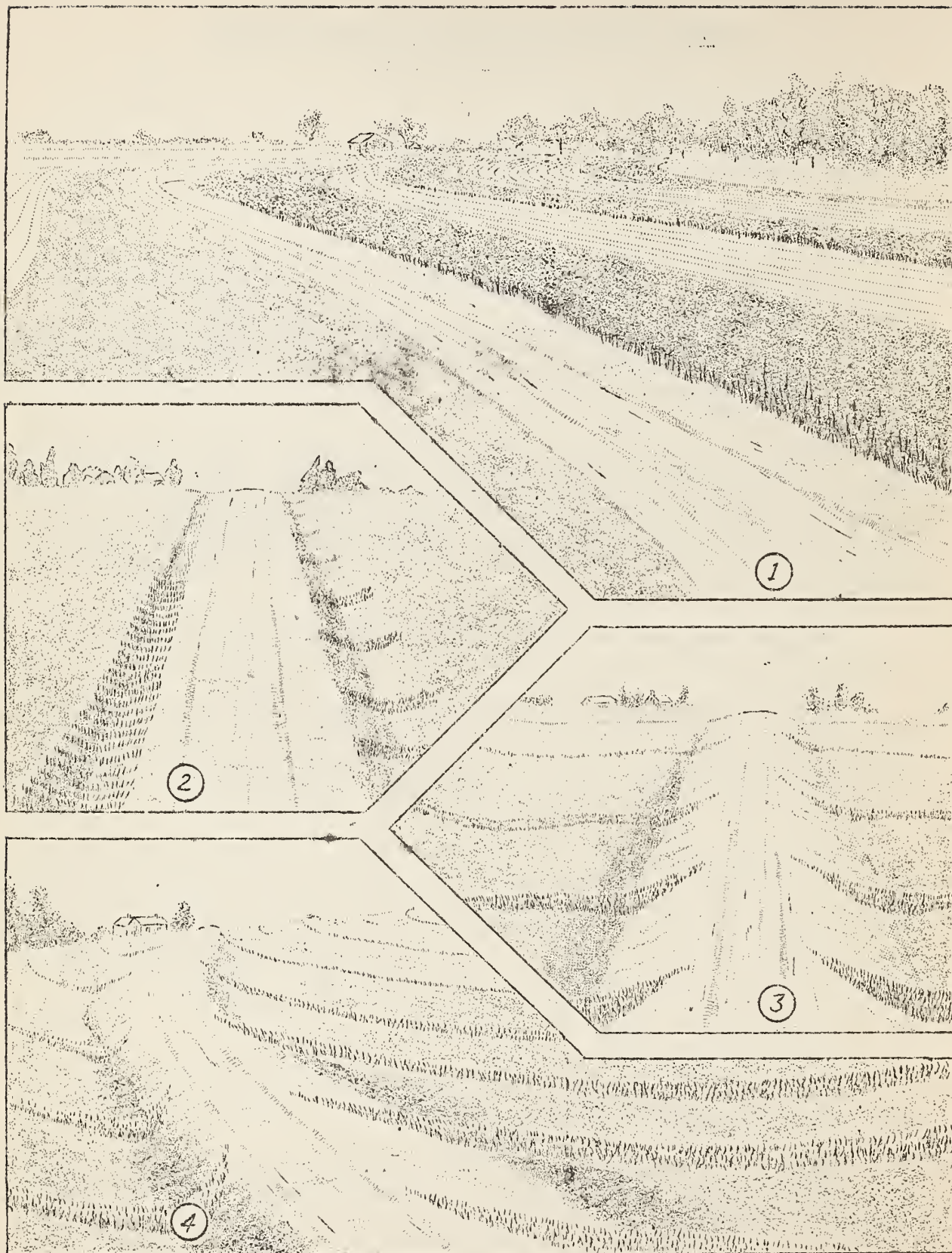
Erosion caused by farm roads could be eliminated if the roads were correctly located and proper measures instituted to protect them.

Farm roads should be so located as to prevent, insofar as possible, the concentration of water even if it is necessary to increase travel distances between points on the farm. Roads should never be located straight down hill or parallel to the terrace outlet on cultivated fields, but should run as nearly as possible on the contour. (See drawing 1).

On pasture land in some cases the road may be on a steeper gradient where the ditches are protected with sod as shown in drawing 2. It may be possible, also, to cut contour furrows into the ditch lines as shown in drawing 3, but this method is sometimes dangerous because of the fact that the water will follow the ruts made in wet weather and instead of going into the ditch on either side of the road will flow to the bottom of the hill in the tracks. This hazard is overcome by constructing the road around the hillside as shown in drawing 4.

In some instances road locations can be made on the side of the hill. This method eliminates the concentration of water on the lower side, but the upper side must be protected.

When it is necessary to construct a road from one cultivated field to another it is often best to locate it via the pasture, even though the distance is increased.



Farm Roads

If individual outlets are used for a terrace system, the road should never traverse the areas where the water is emptied.

Care should be taken that the concentration of water from farm buildings does not drain into the farm road. (See drawing 5). This is a very common cause of gullies near homesteads and barns, and can easily be eliminated if care and attention is given to the location of roads and protective measures are properly used.

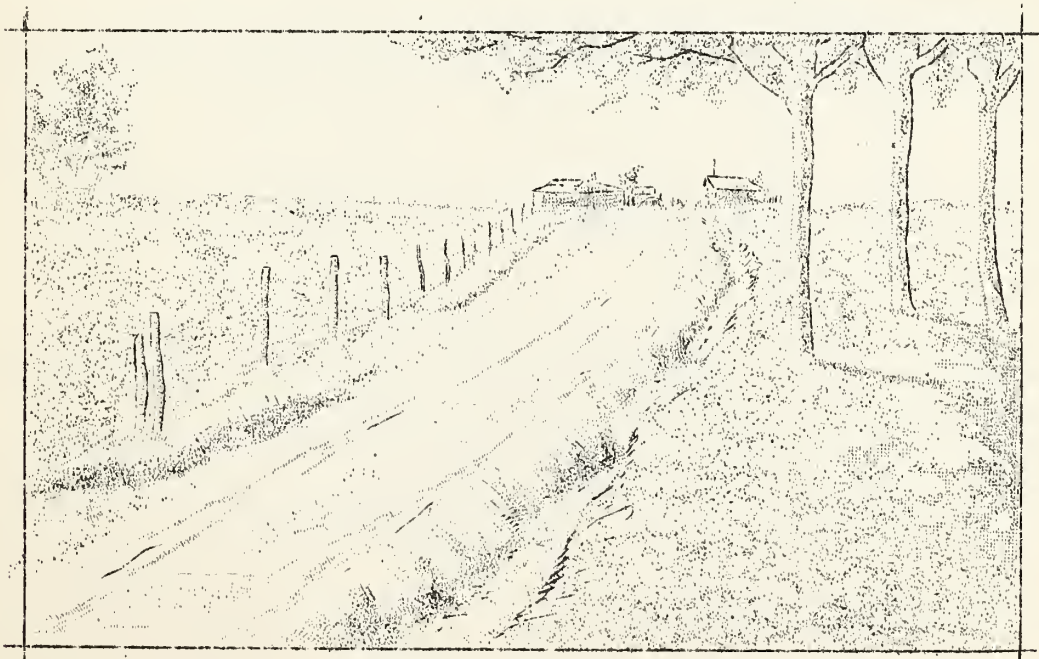
Fire lanes should never be used as roads unless they are on level ground or constructed on the contour. The lanes are inviting for use as a roadway, but the practice will prove damaging even if used occasionally.

Most man-made gullies were once roads or trails, some of which were only used for a short period, but long enough to start a concentration of water.

Cattle paths are often the cause of gullies. The paths should be definitely located and not left for cattle to pick at random. The best way to stop trails being beaten out by cattle is to set up short strands of wire at intervals across the path.

Foot paths are sometimes responsible for the starting of gullies, since vegetation is beaten down and the bare unprotected area will gradually cut deeper and increase in size with each rain.

While the location of roads, trails and paths may seemingly be minor matters from the standpoint of causes of erosion, nevertheless they are responsible, either directly or indirectly for untold damage to agricultural lands. A well planned farm must include the proper location of roads, trails and paths and measures must be installed to prevent erosion which is sure to occur if precautionary measures are neglected.



Drawing No. 5

LIKES DALLIS GRASS

"Dallis grass is an excellent grass for gully control," says Mr. Richard S. Gracy, Route 4, Austin, Cooperator with Soil Conservation Service, SCS-6-T, Pflugerville, Texas.

"I planted several gullies on my farm to Dallis grass about two years ago; just scattered the seed in the gullies. It has not only stopped a large part of the erosion but has collected several inches of silt in many places," Mr. Gracy stated.

The soil on the Gracy farm is Shallow Phase Houston Clay, and the Dallis grass has made excellent growth on both the well drained and scopy areas, and mixed in with Buffalo and Bermuda grass.

Mr. Gracy hopes to get Dallis Grass established throughout his pasture as it is such an excellent means of erosion control and, in this section, offers almost year round grazing.

-- Tex-4
Lockhart, Texas

CONTOUR RIDGES GET THE JOB DONE

"That four inch rain of March 5 certainly convinced me of the value of contour ridges on pastures," said Mr. Ludvik Anders of the Dubina Community in Fayette County.

Mr. Anders is cooperating with the Schulenburg Soil Conservation Service camp in installing a complete erosion control program on his 247 acre farm.

"Every ridge hold on that 30 acres of eroded land I retired from cultivation to permanent pasture, and that field looked like a lake last Saturday morning; I don't believe a drop of water was lost," said Mr. Anders.

Mr. Anders further stated that if the Bermuda grass planted on these ridges and in the furrow between the ridges (by the camp boys) continued to grow as it had during the past three weeks, the entire field would be completely covered by the middle of summer.

-- Tex-4
Lockhart, Texas

CROP ROTATION IS IMPORTANT

1. Assists in reducing both wind and water losses by adding organic matter to the soil, thereby increasing the water-holding capacity of the soil.
2. Keeps the plant food better balanced in the top soil by changing from tap to fibrous rooted crops.
3. Legumes in the rotation increase the amount of plant food.
4. Permits seasonal distribution of labor for man and horse.
5. Tends to check the spread of diseases and pests.
6. The soil is usually kept in better physical condition.

Few of us realize the importance of a systematic crop rotation and its relationship to soil and water conservation. Naturally it is hard to gage the amount of organic matter that is returned to the soil and also the amount of water that this organic material may absorb. We do know, however, that a clay hill sheds water almost like a tin roof; whereas a field of dark soil rich in organic matter absorbs much of the water that falls on it. From the Experiment Station results cited above, we can see how necessary a good crop system is in conserving both soil and moisture. In this connection it will be well for each cooperator to study in detail his cropping plan not only in its entirety, but for each field on the farm. Give it close study and consideration and we believe that you will be convinced that the cropping plan is one of the most important phases of your conservation program.

In fact one cooperator made the statement last week that in the end cover crops and a sensible cropping system in East Texas would mean more in a conservation program than all the mechanical devices that might be constructed. We are inclined to agree with this cooperator for vegetation is nature's own method of controlling erosion and wherever we duplicate nature's methods we gain that much in soil and water conserved.

-- Tex-9
Mt. Pleasant, Texas

A CONTOUR RIDGING MACHINE

An improvised machine for the construction of contour ridges is being tried out on the Upper Concho River Project. The need for a machine to replace the turning plow and the Kelly plow has been imperative for some time. Such a machine has been the request of operators of the larger ranches.

The initial trial with the machine made on the D. T. Jones farm revealed the following facts:

1. A 10 horse power tractor can handle the machine in second gear on Miles fine sandy loam soil with power to spare.
2. With the points set 50 inches apart a ridge 60 inches over all may be constructed.
3. With one through a ridge with .48 foot effective height was built.
4. Side-burns may be left when the proper speed is maintained.

After minor adjustments the implement will be tried extensively. The trial indicates the machine may be made to construct a contour ridge effectively with one through.

-- Tex-6
San Angelo, Texas

SUGGESTIONS FOR WET WEATHER WORK

May we suggest some wet weather chores you can and should do during the spring?

Pasture Work:

1. Flow out streak furrows on all pasture needing Bermuda sod. Do not wait on us to run lines, as those are not needed. Plow the furrows about six feet apart around the slope.

2. Cut brush, remove rotten stumps and logs, old wire, and prepare for mowing. Repairing a mower broken on an old piece of wire will cost more than the labor used now in cleaning up.

3. Flow in active gullies and throw in some more Bermuda sod.

4. Level up rough places, such as old rows or hog wallows by disk-ing. This also gives the grass cultivation which is necessary for best growth.

5. Fence acre seed plot against stock from now on so clovers will seed well.

Terraces:

1. Search out weak places and make repairs before the rain does its damage.

2. Clean the outlets to prevent ponding of water and breakage near outlets.

3. Remove silt deposits on upper side of terraces. Silting in causes most terraces to break.

4. Kill gophers and locate their runs through terraces before the break occurs.

Fields:

1. Plow in and seed down all washes between strips or terraces with sorghum at least ten feet on either side and drag plows through it when cultivating.

Your crops come first right now, of course, but these suggestions are merely to remind you of some rainy day jobs.

Please call us when you have something ready for our crews or need our help.

-- Tex-7

Macogdoches, Texas

SAVING SEED IMPORTANT

Many of us try to look forward and ask ourselves questions about just what is important in Soil Conservation. There are the fundamentals of soil erosion control that we often discuss, and with which we are all more or less familiar. Of course, as we all know, the most essential of these fundamentals are: removing steep and badly eroded land from cultivation to sod and trees, terracing, contour cultivation, strip cropping, rotation of crops, etc. Both cooperators and staff members know that we have not departed from these good practices of erosion control.

However, when we take a glimpse into next year or even many years to come, there is nothing more essential than the saving of seed; because seed is necessary for strip cropping, soil building, meadows and pastures. Vegetation is the best, cheapest, and nature's own means of building and keeping the soil in place. The saving of seed then goes to the very heart of a soil conservation program.

Last year we all worked hand in hand in saving oat seed. We threshed more seed than the Service issued. This year we all hope to do a better job.

-- Ark-6

Waldron, Arkansas

A GOOD TIP

The value of a SCS work area to a large extent depends on the number of persons who see it as much as it does on the value of the practices demonstrated. We are, therefore, including in this issue of the News Letter a map of the project area, showing suggested routes which visitors may follow to see some of the practices being put into effect on the farms of cooperators in our project area. These routes are not given because the work along these roads is superior to that on other farms under agreement, but because these roads constitute practical routes to cover without a lot of retracing or extra driving.

Erosion control measures along the roads suggested include practically all soil-conservation measures being carried out in the area. On the map, attention is called to the practice or practices best shown at the points mentioned. We feel it is well worth the time of anyone to cover one of these routes, perhaps stopping to talk to some of the cooperators along the way, and seeing the effort that is being made by these cooperators to control erosion on their farms.

-- Ark-4
Monticello, Arkansas

CONSERVATION ASSOCIATION ACTIVE

The Webster Parish Voluntary Soil Conservation Association has as its aim to make every farmer in Webster Parish erosion conscious and build an organization that will promote better farm practices that will control erosion and build up the soil for future generations.

The association invites and urges every farmer that is interested in erosion control problems to join the Soil Conservation Association. All desiring to join the Association please call at the Soil Conservation Service office or see your local Association Director.

-- La-1
Minden, Louisiana

PREVENT WOODS FIRES

There are two chief methods of preventing fires from burning the woods. These are:

1. By being careful when burning brush or building fires for other purposes.

2. By enforcing the state laws regarding the burning of woods.

Every farm owner should instruct his tenants and laborers to be careful with fire and to put out any fires that occur in the woods. There are very few landowners who deliberately set fire to their own woods. When some other person sets fire to your woods, do not hesitate to take advantage of the state laws passed for this purpose.

Any farmer who keeps fire out of his woods is not only receiving more benefits from these woods but he is leaving them in better condition for his children and their children.

-- La-1

Minden, Louisiana

PROTECT FIELDS PLANTED TO DEMONSTRATION PASTURES

This spring has been most favorable for the growth of pasture grasses. Warm days, few frosty nights, and an abundance of rainfall, have all contributed toward giving the one acre pasture seed plots an ideal start. They are not all ideal, but in some cases they are exceptional for this time of year. With a few rains in May and June we believe that they will make a good seed crop; and that is all we expect this first year. But these plots will make seed only if they are protected from grazing.

With protection from grazing it is believed that enough seed will be produced the first year to insure a luxuriant growth of clovers and grasses the following year, and then controlled grazing may be practiced. Even this limited grazing should be withheld until the clovers begin to seed. Thus a few head of livestock grazing for a short while on seeding clovers and then going from this seed plot to a larger pasture will scatter the seed to this larger pasture.

For controlled grazing it is essential that all demonstration pasture plots be separately fenced, and a gap provided so that livestock may be turned in and out during the grazing period.

After excessive rains when the ground is soft all livestock should be kept off the seed multiplication plots, for at such times the clovers and grasses may be severely damaged from trampling.

The one acre demonstration pasture is a worth while field on your farm.

-- La-2

Mansfield, Louisiana

WOODLAND MANAGEMENT

Some of the important things to remember in managing a farm wood lot are:

1. Forest land that is too steep for permanent cultivation should never be cleared, and the steep slopes now in cultivation should be planted back to forest.

2. The woodland should be separated from the pasture and the open pasture improved in order to supply the maximum amount of grazing. Woodland pastures usually produce scrub cows and scrub trees and fail to control run-off water.

3. Do not allow the woodland to be burned. Fire kills the young seedlings that would grow into mature trees. It injures and often kills large trees. It may weaken a tree to such an extent that it can be easily killed by disease, insects or drouth. It also destroys the leaf litter that should be left on the ground to control run-off water.

4. Careful selective cutting should be done in order to produce the maximum amount of high quality timber in the shortest possible time. The trees that are best suited for producing logs of high quality should be selected as final crop trees. All scrubby, defective and suppressed trees should be removed and worked into railroad ties, pulpwood, fuel or other low-grade forest products. Dense stands of old field or second growth pines should never be clean cut for low grade products such as pulp, but thinnings should be made for the purpose of speeding up the growth of the crop trees and these thinnings should be profitably sold for pulp wood, poles, ties and similar products. Cuttings from the farm woodland should be made during the winter months when farm labor is idle and there is little danger from insect damage.

-- 1a-5

Farmerville, Louisiana

PUTTING A SORE SPOT TO WORK

Presenting a perfect picture of desolated land, so badly eroded and deeply gullied that no plant life now abodes there, is a one-acre plot near the tenant house of a farm belonging to Robert L. Holmes, near Ruston.

This farm is now under ECW Cooperative Agreement with the Soil Conservation Service and erosion control measures are being instituted to reclaim it.

The particular one-acre plot mentioned above has been set aside for wildlife plantings. Formerly water from the field just above this plot was drained into a roadside ditch and rain from the ditch into this small plot, causing an extremely eroded condition.

To make this plot a sanctuary for wildlife species, wire check dams are being constructed in the gullies to prevent further washing. Also the gullies are to be spot sodded with Bermuda. Rainwater from the fields above no longer are drained into the roadside ditch but are turned into a woodland plot.

A total of 500 seedlings composed of Soapberry and Himalaya have been set out as cover for birds and game. Lespedeza and Rye grass will be planted to furnish food for the wildlife species.

-- La-6
Ruston, Louisiana

CONTOUR TERRACE CONSTRUCTION

R. E. Garrett, operator of the W. M. Davis farm which is located four miles south of Hope on the Patmos Highway, completed a diversion terrace 1150 feet long in a very short time.

Using his team of 1400-pound mules and a three-foot fresno, he completed this terrace in five days and four hours, or an average of 270 feet per 10-hour day. This diversion terrace has an effective height of 22 inches and a base width of 23 feet.

Using an old terrace about nine feet wide and nine inches as a guide, Mr. J. G. Garrett, who operates a farm just south of the W. M. Davis farm, built a terrace 1100 feet long 20 inches high and 20 feet wide in two 10-hour days.

-- Ark 5
Hope, Arkansas

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DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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